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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,701	07/03/2003	Ronald G. Hart	6270/110	6836
46260	7590	12/29/2005	EXAMINER	
BRINKS HOFER GILSON & LIONE/PML PO BOX 10395 CHICAGO, IL 60610			WACHSMAN, HAL D	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/613,701	<b>Applicant(s)</b> HART, RONALD G.	
	<b>Examiner</b> Hal D. Wachsman	<b>Art Unit</b> 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 43-64 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-59 is/are allowed.
- 6) ☒ Claim(s) 60-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11-30-05 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 60-63 are rejected under 35 U.S.C. 102(b) as being anticipated by “Global Positioning System applications at the Bonneville Power Administration” (Street et al.).

As per claim 60, Street et al. (page 244, section 1. Introduction) disclose “sensing at least one electrical parameter...generating at least one analog signal indicative thereof”. Street et al. (page 247, section 5.1 BPA’s experience to date) disclose “converting said at least one analog signal to at least one digital sample”. Street et al. (page 244, section 1. Introduction, pages 244-245, section 3. GPS SYSTEM OVERVIEW, page 247, figure 4) disclose “generating at least one time synchronization signal from at least one time synchronization receiver”. Street et al.

(page 244, section 1. Introduction, page 245 section 3, last paragraph, page 245, section 4.1 Traveling Wave Fault Locator Principles – right column, page 247, section 5. Phasor Measurement Development, section 5.1 BPA's experience to date, figure 4) disclose "generating a synchronized timing clock signal by altering a timing clock signal...based on at least one of said at least one time synchronization signal".

As per claim 61, Street et al. (page 246, section 4.2 BPA Fault Locator Operation using GPS Timing, page 250, section 7, Conclusion) disclose the feature of this claim.

As per claim 62, Street et al. (pages 244-245, section 3. GPS System Overview, figure 2, page 246, section 4.2 BPA Fault Locator Operation using GPS Timing) disclose the feature of this claim.

As per claim 63, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over “Global Positioning System applications at the Bonneville Power Administration” (Street et al.) in view of Adamiak et al. (5,809,045).

As per claim 64, Street et al. (page 244, section 1. Introduction) disclose the sensing means as described in lines 3-4 of the claim. Street et al. (page 247, section 5.1 BPA's experience to date) disclose the converting means as described in lines 5-6 of the claim. Street et al. (page 244, section 1. Introduction, pages 244-245, section 3. GPS SYSTEM OVERVIEW, page 247, figure 4) disclose the generating means as described in lines 7-8 of the claim. Street et al. (page 244, section 1. Introduction, page 245 section 3, last paragraph, page 245, section 4.1 Traveling Wave Fault Locator Principles – right column, page 247, section 5. Phasor Measurement Development, section 5.1 BPA's experience to date, figure 4) disclose the synchronization means as described in lines 9-10 of the claim. It appears though that Street et al. does not clearly disclose the processing means as described in the last 2 lines of the claim. However, Adamiak et al. (figure 1, col. 3 lines 50-53, col. 4 lines 63-67, col. 5 lines 1-60) teach this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Adamiak et al. to the invention of Street et al. as specified above because as taught by Adamiak et al. (col. 4 lines 64-67, col. 5 line 1) in addition to being important for multi-terminal transmission lines, time synchronization is important in many other applications such as power relays, determinations of sequences of events, economic power dispatch, and any other situation requiring synchronization of clocks.

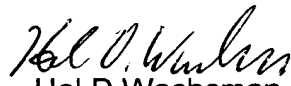
6. Claims 43-59 are allowed.

7. Applicant's arguments filed 11-30-05 have been fully considered but they are not persuasive. With respect to claim 64, as shown above, a new grounds of rejection has now been made under 35 U.S.C. 103. With respect to claim 60 and the arguments concerning the altering of the timing clock signal, this aspect of the invention is different in claim 60 compared to claims 43 and 54 for example, because in claim 60 it states "generating a synchronized timing clock signal by altering a timing clock signal of *said at least one digital sample...*". and Street et al. (page 247, section 5.1) clearly states "A GPS receiver at each substation provides a 1 Pulse Per Second (1 PPS) **synchronizing signal** and a phase locked 720 Hz **sampling clock**". Thus, the 35 U.S.C. 102(b) rejections of claims 60-63 have been maintained.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D. Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hal D Wachsman  
Primary Examiner  
Art Unit 2857

HW  
December 26, 2005